

REMARKS

Claims 1-22, 24, 25 and 31-37 are currently pending in the application. Claim 23 has been canceled, claims 1, 4, 18-20, 24 and 25 have been amended consistent with the Examiner's comments in an effort to resolve the formal claims objections, and claims 31-37 have been added for consideration by the Examiner. Support for the new claims can be found in the original claims. No new matter has been added. Reconsideration of the rejected claims in view of the following remarks is respectfully requested.

Objection to the Specification

The specification is objected to for allegedly having a non-descriptive title. Applicants respectfully disagree.

The Examiner has not shown how the title is not descriptive. Nor has the Examiner suggested any language which would be more descriptive of the invention. Applicants remind the Examiner that the title does not, and is not, intended to define the invention. That is the job of the claims.

Accordingly, Applicants respectfully request that the above-noted objection to the title be withdrawn.

Objection to the Claims

Claims 1, 18, 19, 20 and 23 were objected to on the basis of minor asserted informalities. By this Amendment, Applicants submit that each of the asserted bases of objection has been addressed. In particular, claims 1, 18, 19 and 20 have been

amended in the manner consistent with the Examiner's comments/suggestions.

Moreover claim 23 has been canceled in favor of new claim 31 which is believed to address the Examiner's noted deficiencies.

Accordingly, Applicants respectfully request that the above-noted objection of the claims be withdrawn.

35 U.S.C. §103 Rejections

Claims 1, 3-5 and 9-18 were rejected under 35 U.S.C. §103(a) over US Patent No. 6,111,292 to GARDENER et al. in view of US Patent Application Publication 2005/0082522 to HUANG et al. The rejection is respectfully traversed.

Claims 2 and 6-8 were rejected under 35 U.S.C. §103(a) over GARDENER in view of HUANG et al., and further in view of US patent No. 6,297,117 to YU. The rejection is respectfully traversed.

Claims 19-25 were rejected under 35 U.S.C. §103(a) over YU in view of GARDENER and further in view of HUANG et al. The rejection is respectfully traversed.

While Applicants respectfully disagree with each of the above-noted obviousness rejections, Applicants nevertheless submit that each of these rejections is rendered moot inasmuch as each rejection is based on the HUANG reference, and inasmuch as Applicants have herein demonstrated that HUANG is not available as prior art under 35 U.S.C. § 102(e) for the following reason.

Under § 1.131, a rejection that is based on a 35 U.S.C. § 102(e) patent or published application publication may, upon a proper showing, be overcome by removing the reference against the claims. Applicants submit that the § 1.131

Declaration submitted herewith is sufficient to remove the HUANG patent application publication under § 102(e) as a reference and thus is sufficient to overcome the above-noted § 103(a) rejection.

More specifically, Applicants submit that the § 1.131 Declaration is formally and substantively sufficient to establish that the Inventors had completed the invention defined in at least claims 1, 19 and 31 (as well as the dependent claims) in the United States before the effective date of the HUANG reference, i.e., July 25, 2003. The statements in the Declaration show that the formal requirements of § 1.131 is satisfied, namely:

- (1) the rejection to be overcome is based on a § 102(e) reference;
- (2) all the acts for completing the invention of claims 1, 19 and 31, and those claims dependent thereon, were performed in the United States; and
- (3) the effective date of the HUANG reference (i.e., July 25, 2003) is not more than one year prior to the effective filing date of the present application, i.e., not more than one year prior to March 3, 2004.

It is respectfully submitted that the statements in the Declaration are also sufficient to satisfy the substantive requirements of 37 C.F.R. § 131. The Declaration sets forth specific facts, of sufficient character and weight, to establish a **date of conception** before July 25, 2003, the effective date of the HUANG reference, and to show that the Inventors and their attorneys exercised **due diligence** from a time before the effective filing date of the HUANG reference to a constructive reduction to practice, i.e., to the filing date of the instant application in the United States on March 3, 2004.

DATE OF CONCEPTION

As stated in the Declaration, the Inventors conceived a method of manufacturing a semiconductor structure, comprising the steps of forming spacer voids between a gate a mandrel layer, creating recesses in a substrate below and in alignment with the spacer voids, filling a first portion of the recesses with a stress imposing material, filling a second portion of the recesses with a semiconductor material, and removing the mandrel layer.

The inventors also conceived of a method of manufacturing a semiconductor structure, comprising the steps of forming dummy spacers on sides of a gate formed on a substrate, forming a mandrel layer with portions of the mandrel layer abutting the dummy spacers, removing the dummy spacers to form spacer voids between the gate and the mandrel layer, creating recesses in the substrate below and in alignment with the spacer voids, filling a first portion of the recesses with a stress imposing material, and filling a second portion of the recesses with a semiconductor material.

The inventors also conceived of a method of manufacturing a semiconductor structure, comprising the steps of forming a field effect transistor gate on a substrate, forming a first dummy spacer and a second dummy spacer on sides of the field effect transistor gate, forming a mandrel layer with portions of the mandrel layer abutting the first and second dummy spacers for the field effect transistor gate, after masking the semiconductor, introducing stress to the field effect transistor gate, and removing the mandrel layer, wherein the step of introducing stress material comprises removing the first and second dummy spacers from the field effect transistor gate to form first and second spacer voids between the field effect transistor gate and the portions of the

mandrel layer, creating a first recess in the substrate below and in alignment with the first spacer void and a second recess in the substrate below and in alignment with the second spacer void for the field effect transistor gate, filling a first portion of the first recess and a first portion of the second recess with a stress imposing material configured to enhance performance of the field effect transistor gate, filling a second portion of the first recess and a second portion of the second recess for the field effect transistor gate with a semiconductor material, and unmasking the semiconductor structure.

An IBM Invention Disclosure is submitted with the Declaration as supporting evidence of this prior data of conception. It is respectfully submitted that the Invention Disclosure shows that the Inventors had a definite and permanent idea of the complete and operative invention of all the pending claims 1-22, 24, 25 and 31-37 prior to July 25, 2003, the effective date of the HUANG reference.

Applicants note that the attached Invention Disclosure labeled "FIS8-2003-0281" was forwarded to the inventors along with the Declaration and includes the subject matter of the invention recited in the claims of the instant application. In particular, the Invention Disclosure, textually, shows the features of independent claims 1, 19 and 31 (and dependent claims). Also, Applicants submit and assert that the original Invention Disclosure "FIS8-2003-0281" has a date antedating the July 25, 2003 effective date of the HUANG reference. This and all other pertinent dates have been removed from the photocopies of the Invention Disclosure and accompanying documents submitted with the Declaration to prevent any potential prejudice to Applicants.

Applicants further submit that the Declaration filed herewith shows, unequivocally, that the Inventors had in their possession a definite and permanent idea of the complete and operative invention of the pending claims before July 25, 2003 in a manner sufficient to satisfy the requirements of conception, as set forth in M.P.E.P. 715.07 and 2138.04, and thus constitute *prima facie* evidence of Applicants' date of conception of the invention in this country before the effective date of the HUANG reference.

DUE DILIGENCE

Applicants further submit that the Declaration shows the Inventors and their attorneys exercised due diligence from a time before the July 25, 2003 effective date of the HUANG reference to a constructive reduction to practice, realized by the filing of the above-identified patent application on March 3, 2004 in the United States.

The Invention Disclosure was submitted to the IBM review board before July 25, 2003. A prior art search was also performed before July 11, 2003. The invention disclosure was forwarded to outside counsel on July 11, 2003. Discussions between the Inventors and counsel took place until a final application was forwarded to the Inventors for execution, and subsequent filing on March 3, 2004.

Counsel acted in an expeditious manner to prepare the application for filing. Under M.P.E.P. § 2138.06, only *reasonable* diligence is required in this regard. More specifically, § 2138.06 states that a patent attorney will be held to have exercised reasonable diligence if the attorney worked reasonably hard on the application during the critical period, taking into consideration any backlog of unrelated cases the attorney may have had and his completion of those cases along with the present application in

chronological order. Applicants respectfully submit that the Declaration shows that counsel acted sufficiently expeditiously to satisfy the requirements of due diligence.

Applicants submit that the Declaration submitted herewith is sufficient to show that due diligence was exercised as required under 37 C.F.R. § 131. The Inventors remained in regular contact with counsel to answer questions, provide technical explanation, and supply the supplemental disclosure materials necessary for allowing the application to be filed in an expeditious manner.

Accordingly, Applicants respectfully request that the rejection over claims 1-22, 24 and 25 be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 09-0458.

Respectfully submitted,
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